## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): TESHIMA

Atty. Dkt.: 01-279-CON

Serial No.: Unknown

Group Art Unit:

Filed: Concurrently herewith

Examiner:

Title: SEMICONDUCTOR DEVICE AND

**METHOD FOR MANUFACTURING** 

SEMICONDUCTOR DEVICE

Commissioner for Patents Arlington, VA 22202

Date: February 27, 2004

## INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56, the reference(s) listed on the attached Form PTO-1449 is/are being submitted for consideration by the Examiner without any admission that it/they constitute(s) statutory prior art, or without any admission that it/they contain(s) subject matter that anticipates the invention or renders the invention obvious to a person of ordinary skill in the art.

The Examiner is requested to initial the attached PTO Form-1449 and to return a copy of same to the undersigned attorney as proof that the listed reference(s) has/have been considered and made of record.

Respectfully submitted,

David G. Posz Reg. No. 37,701

Posz & Bethards, PLC 11250 Roger Bacon Drive, Suite 10 Reston, VA 20190 (703)707-9110 (phone) Customer No. 23400

# \* PATENT APPLICATION Page 1 of 4

FORM PTO-1449	ATTY. DKT NO.	01-279-CON	SER. NO.
	APPLICANT	TESHIMA	
	FILING DATE	February 27, 2004	GROUP

# REFERENCE DESIGNATION

# **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
	S/N 09/489,475	Jan. 21, 2000	Kimura et al.		
	S/N 09/675,209	Sept. 29, 2000	Suzuki et al.		
	S/N 09/351,458	July 12, 1999	Nakase		
	S/N 09/435,840	Nov. 8, 1999	Hirai		
	S/N 09/717,227	Nov. 22, 2000	Mamitsu et al.		
	5,641,997	June 24, 1997	Ohta et al.		
	5,789,820	Aug. 4, 1998	Yamashita		
	5,708,299	Jan. 13, 1998	Teramae et al.		

#### FOREIGN PATENT DOCUMENTS

**ABSTRACT** 

DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS	SUB CLASS	YES	NO
JP-A-5-283562 *	10/29/93	JAPAN				X	
JP-A-6-349987 *	12/22/94	JAPAN				Х	
JP-A-7-45765 * ·	2/14/95	JAPAN				X	
JP-A-11-186469 * -	7/9/99	JAPAN				X	
JP-A-2000-31351 * -	1/28/00	JAPAN				Х	
JP-A-2001-118961 * -	4/27/01	JAPAN		1		X	
JP-A-6-291223 *	10/18/94	JAPAN				X	
JP-A-3-20067 * ·	1/29/91	JAPAN				Х	
GB 2146174 ·	4/11/85	U.K.				X	
JP-A-4-249353.*	9/4/92	JAPAN				.X	

<sup>\*</sup> Full English text of the JP Document will be available in machine-translated form from JP (Japanese Patent Office) English language web site at http://www1.ipdl.jpo.go.jp/PA1/cgi-bin/PA1INDEX.

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	Nobuhiro Takamura, <u>ELECTRONIC TECHNOLOGY</u> , 1999-5, pp. 56-59.
	Johnson and Pote, "Silicon Precipitate Nodule-Induced Failures of MOSFETs," <u>ISTFA '91:</u> The 17 <sup>th</sup> International Symposium for Testing & Failure Analysis, Los Angeles, CA,  November 11-15, 1991, pp. 161-165.
EXAMINER	DATE CONSIDERED

FORM PTO-1449	ATTY. DKT NO.	01-279-CON	SER. NO.	1 age 2 01 4
	APPLICANT	TESHIMA	_1	
	FILING DATE	February 27, 2004	GROUP	

#### REFERENCE DESIGNATION

#### U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
	6,072,240	June 6, 2000	Kimura et al.		
	5,248,853	Sept. 28, 1993	Ishikawa et al.		
	5,801,445	Sept. 1, 1998	Ishihara et al.		
	5,229,646	July 20, 1993	Tsumura		
	4,558,345	Dec. 10, 1985	Dwyer et al.		
	4,546,374	Oct. 8, 1985	Olsen et al.		
	4,984,061	Jan. 8, 1991	Matsumoto et al.		
	5,481,137	Jan. 2, 1996	Harada et al.		

#### FOREIGN PATENT DOCUMENTS

ABSTRACT SUB DOCUMENT NUMBER COUNTRY NAME NO DATE CLASS YES CLASS JP-A-11-260979 \* 9/24/99 JAPAN X JP-A-4-27145 \* X 1/30/92 JAPAN JP-A-9-148492 \* X 6/6/97 **JAPAN** X JP-A-4-12555 \* 1/17/92 **JAPAN** JP-A-4-103150 \* 4/6/92 **JAPAN** X JP-A-60-137042 \* 7/20/85 **JAPAN** X JP-A-5-109919 \*  $\mathbf{X}$ 4/30/93 **JAPAN** X JP-A-61-166051 \* 7/26/86 **JAPAN** JP-A-2-117157 \* 5/1/90 **JAPAN**  $\mathbf{X}$ JP-A-63-102326 \* 5/7/88 **JAPAN** X JP-A-60-235430 \* 11/22/85 X **JAPAN** JP-A-7-240432 \* 9/12/95 X **JAPAN** JP-A-8-45874 \* 2/16/96 JAPAN X  $\mathbf{X}$ JP-A-S62-2558 1/8/87 **JAPAN** JP-A-2000-294699 X 10/20/00 **JAPAN** JP-A-H05-267491 10/15/93 **JAPAN** 

#### OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER	DATE CONSIDERED

<sup>\*</sup> Full English text of the JP Document will be available in machine-translated form from JP (Japanese Patent Office) English language web site at http://www1.ipdl.jpo.go.jp/PA1/cgi-bin/PA1INDEX.

FORM PTO-1449	ATTY. DKT NO.	01-279-CON	SER. NO.
	APPLICANT	TESHIMA	
	FILING DATE	February 27, 2004	GROUP

# REFERENCE DESIGNATION

#### **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
	4,827,082	May 2, 1989	Horiuchi et al.		
	4,538,170	Aug. 27, 1985	Yerman		
	4,646,129	Feb. 24, 1987	Yerman		
	4,141,030	Feb. 20, 1979	Eisele et al.		
	3,648,121	March, 1972	Suenaga et al.		
	3,818,584	June, 1974	Suenaga et al.		
	6,542,365	April, 2003	Inoue		

#### FOREIGN PATENT DOCUMENTS

 					Al	3STARCT	Γ
DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS	SUB CLASS	YES	NO
JP-A-60-95947 * ·	5/29/85	JAPAN		·		X	
JP-A-61-265849 *	11/25/86	JAPAN				X	
JP-A-62-141751 * ·	6/25/87	JAPAN				Х	
JP-A-63-96946 *	4/27/88	JAPAN				Х	
JP-A-62-92349 *	4/27/87	JAPAN				X	
JP-A-62-287649 *	12/14/87	JAPAN				X	
JP-B2-59-38734 *	9/19/84	JAPAN				Х	
JP-A-1-228138 * ·	9/12/89	JAPAN				X	
JP-A-54-40569 * ·	3/30/79	JAPAN				Х	
JP-A-61-251043 *	11/8/86	JAPAN				Х	
JP-A-54-95183 *	7/27/79	JAPAN				X	
JP-A-59-31042 * ·	2/18/84	JAPAN				Х	
JP-A-7-38013 * -	2/7/95	JAPAN				X	
JP-A-7-273276 * -	10/20/95	JAPAN				Х	
JP-A-8-191145 * ·	7/23/96	JAPAN		, ,		Х	
JP-A-2000-91485 *	3/31/00	JAPAN				Х	

<sup>\*</sup> Full English text of the JP Document will be available in machine-translated form from JP (Japanese Patent Office) English language web site at http://www1.ipdl.jpo.go.jp/PA1/cgi-bin/PA1INDEX.

# OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

1 1	•		
1	1		
1 1			
1 1			
1 1			
	1		
	1		
	1		
EXAMINER		DATE CONCIDENCE	
I EXAMINER		DATE CONSIDERED	
		2.1.2 00.10.22.1122	

# \* PATENT APPLICATION

FORM PTO-1449	ATTY. DKT NO.	01-279-CON	SER. NO.
	APPLICANT	TESHIMA	
	FILING DATE	February 27, 2004	GROUP

# REFERENCE DESIGNATION

## **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
	4,685,987	Aug. 11, 1987	Fick		
	5,311,060	May 10, 1994	Rostoker et al.		
	5,886,400	Mar. 23, 1999	Letterman, Jr. et al.		
	6,072,240	Jun. 6, 2000	Kimura et al.		
	2003/0132530 A1	Jul. 17, 2003	Teshima et al.		

#### FOREIGN PATENT DOCUMENTS

TRANSLATION

 <del></del>						TICKINGE	
DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS	SUB CLASS	YES	NO
JP-A-S58-34951	3/1/83	JAPAN				X (Abstract)	
JP-A-2000-174180	6/23/00	JAPAN				X (Abstract)	

\* \* Full English text of the JP Document will be available in machine-translated form from JP (Japanese Patent Office) English language web site at http://www1.ipdl.jpo.go.jp/PA1/cgi-bin/PA1INDEX.

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

ı	II					
	i l					
	<del></del> -					
Į						
1	l l					
ı	ľ					
ı						
i	EXAMINER	<del></del>	DATE CONSIDERED			
ı	LAAMINER		DATE CONSIDERED			
ı						
	D 10/04 (F 3.05)					